

REMARKS**Interview request**

Applicants respectfully request a telephonic interview after the Examiner has reviewed the instant response and amendment. Applicants request the Examiner call Applicants' representative at 858 526-0376.

Status of the Claims*Pending Claims*

Claims 1, 14, 15, 29, 33, 35, 40, 42-45, 48, 49, 51, 54, 56, 58, 87, 106, 107, 111, 113, 116, 138, 143, 174, 175, 177, 182, 184, 187-190, 192, 203-208, and 215-231 are pending. Claims 42, 51, 54, 56, 58, 106, 107, 111, 113, 116, 138, 143, 174, 175, 177, 182, 184, 187, 190, 208, 215, 216, 219-224, and 229-231 are withdrawn from consideration as being drawn to a non-elected invention.

Claims canceled in the instant amendment

Claims 192 and 203-206 are canceled without prejudice or disclaimer. Accordingly, after entry of the instant amendment, claims 1, 14, 15, 29, 33, 35, 40, 43-45, 48, 49, 87, 188-189, 207, and 217-218, and 225-228 will be pending and under examination.

Allowable Claims

Applicants thank the Office for noting that Claim 189 is allowed. Applicants further thank the Office for noting that Claims 206 and 207 are only objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Outstanding Rejections

Claims 1, 14, 15, 29, 33, 35, 40, 43-45, 48, 49, 87, 188, 192, 203-205, 217, 218 and 225-228 are rejected under 35 U.S.C. §112, first paragraph, written description.

Claims 29 and 218 are rejected under 35 U.S.C. §112, second paragraph.

Applicants respectfully traverse all outstanding rejections of the claims.

Support of the Claim Amendments

The specification sets forth an extensive description of the invention in the amended claims. Accordingly, Applicants respectfully submit that no new matter is introduced by the instant amendment.

Claim Objections

Claims 192 and 225 are objected to for reasons set forth on page 2 of the OA. The instant amendment addresses this issue. Therefore, the claim objections may be properly withdrawn.

Claim Rejections – 35 USC § 112, first paragraph, written description.

Claims 1, 14, 15, 29, 33, 35, 40, 43-45, 48, 49, 87, 188, 192, 203-205, 217, 218 and 225-228 are rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement, as set forth in detail on page 3 of the OA.

The instant amendment addresses this issue. For example, the Office was concerned about the scope of the genus of polynucleotides encoding fluorescent proteins and having 75% identity to SEQ ID NO:29. To address the Examiner's concerns, the scope of claims 1, 33 and 118 has been amended to include a genus of polynucleotides having at least 95% identity to the nucleic acid sequence of SEQ ID NO:29 wherein the nucleic acid encodes a fluorescent polypeptide.

Accordingly, Applicants respectfully submit that the rejection under 35 U.S.C. § 112, first paragraph can be properly withdrawn.

35 U.S.C. § 112, second paragraph

Claims 29 and 218 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim subject matter, as set forth in detail on page 6 of the OA. The instant amendment addresses this issue.

Therefore, Applicants respectfully submit that the rejection under 35 U.S.C. § 112, second paragraph can be properly withdrawn.

CONCLUSION

In view of the foregoing amendment and remarks, Applicants respectfully submit that the Examiner can properly withdraw the claim objections and the rejection of pending claims under 35 U.S.C. §112, first and second paragraphs. In view of the above, claims in this application after entry of the instant amendment are believed to be in condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejections of the claims and to pass this application to issue.

In the event the U.S. Patent and Trademark Office determines that an extension and/or other relief is required, applicants petition for any required relief including extensions of time and authorize the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to Deposit Account No. 50-0661 referencing docket no. **D1410-2US**. However, the Commissioner is not authorized to charge the cost of the issue fee to the Deposit Account.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at (858)720-5133.

Dated: July 24, 2008

Respectfully submitted,

By /JenniferRisser/

Jennifer Risser

Registration No.:60,059

Intellectual Property Department

VERENIUM CORPORATION

PO BOX 910550

San Diego CA 92121-0550

Phone: 858-526-0376

Email: jennifer.risser@verenum.com